

DS-90
920
#5

OIPE

RAW SEQUENCE LISTING

DATE: 09/19/2001

PATENT APPLICATION: US/09/775,938A

TIME: 10:32:03

Input Set : A:\09-775938 Sequence listing.txt
 Output Set: N:\CRF3\09192001\I775938A.raw

4 <110> APPLICANT: Haygood, M.
 5 Davidson, S.K.
 6 Allen, S.W.
 7 Hildebrand, M.
 9 <120> TITLE OF INVENTION: Bryostatins, Bryopyrans and Polyketides: Compositions and
 Methods
 11 <130> FILE REFERENCE: 1133.010US1
 13 <140> CURRENT APPLICATION NUMBER: US 09/775,938A
 C--> 14 <141> CURRENT FILING DATE: 2001-08-30
 16 <150> PRIOR APPLICATION NUMBER: PCT/US00/21326
 17 <151> PRIOR FILING DATE: 2000-08-04
 19 <150> PRIOR APPLICATION NUMBER: US 60/147,283
 20 <151> PRIOR FILING DATE: 1999-08-04
 22 <160> NUMBER OF SEQ ID NOS: 38
 24 <170> SOFTWARE: FastSEQ for Windows Version 4.0
 26 <210> SEQ ID NO: 1
 27 <211> LENGTH: 17
 28 <212> TYPE: DNA
 29 <213> ORGANISM: Endobugula sertula
 31 <220> FEATURE:
 32 <221> NAME/KEY: misc_feature
 33 <222> LOCATION: (1)...(17)
 34 <223> OTHER INFORMATION: N in this sequence refers to I or inosine.
 36 <400> SEQUENCE: 1
 W--> 37 acrtgngcrt tngtncc ✓ 17
 39 <210> SEQ ID NO: 2
 40 <211> LENGTH: 15
 41 <212> TYPE: DNA
 42 <213> ORGANISM: Endobugula sertula
 44 <220> FEATURE:
 45 <221> NAME/KEY: misc_feature
 46 <222> LOCATION: (1)...(15)
 47 <223> OTHER INFORMATION: N in this sequence refers to I or inosine.
 49 <400> SEQUENCE: 2
 W--> 50 ncayggnacn ggnac ✓ 15
 52 <210> SEQ ID NO: 3
 53 <211> LENGTH: 18
 54 <212> TYPE: DNA
 55 <213> ORGANISM: Endobugula sertula
 57 <400> SEQUENCE: 3
 58 acggacaagg gtcattac 18
 61 <210> SEQ ID NO: 4
 62 <211> LENGTH: 18
 63 <212> TYPE: DNA
 64 <213> ORGANISM: Endobugula sertula
 66 <400> SEQUENCE: 4
 67 acggacaagg gtcattac 18
 69 <210> SEQ ID NO: 5

RAW SEQUENCE LISTING
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70 <211> LENGTH: 29	
71 <212> TYPE: DNA	
72 <213> ORGANISM: Endobugula sertula	
74 <400> SEQUENCE: 5	
75 gttgtctttg cagcatcgca tgttaccac	29
77 <210> SEQ ID NO: 6	
78 <211> LENGTH: 25	
79 <212> TYPE: DNA	
80 <213> ORGANISM: Endobugula sertula	
82 <400> SEQUENCE: 6	
83 cacgccccgt atcccgacac ctacc	25
85 <210> SEQ ID NO: 7	
86 <211> LENGTH: 22	
87 <212> TYPE: DNA	
88 <213> ORGANISM: Endobugula sertula	
90 <400> SEQUENCE: 7	
91 tgctatttga tgagcccgcg tt	22
93 <210> SEQ ID NO: 8	
94 <211> LENGTH: 19	
95 <212> TYPE: DNA	
96 <213> ORGANISM: Endobugula sertula	
98 <400> SEQUENCE: 8	
99 catcgctgct tcgcaacccc	19
101 <210> SEQ ID NO: 9	
102 <211> LENGTH: 315	
103 <212> TYPE: DNA	
104 <213> ORGANISM: Endobugula sertula	
106 <400> SEQUENCE: 9	
107 aaattgggtg atccgataga agtcgagaca ttggcagaat cgtttcgagt ctatacgac	60
108 aaggcgtcatt actgtgcgtc ggggtcggtt aaaagtaata ttggtcattt gggggtaggt	120
109 gctggatag cggcggtgac caaatgttgc ttgtcttgc agcatcgcat gttaccaccg	180
110 acgattcatt gtgaggatgt aaacccacag attgcgttgg aaggtagccc cttttatatc	240
111 aatacggaaat taaagccttg gcagtcttgtt gacggtatac cacgacgggc tggtgtcagt	300
112 tctttgggtg tcagt	315
114 <210> SEQ ID NO: 10	
115 <211> LENGTH: 105	
116 <212> TYPE: PRT	
117 <213> ORGANISM: Endobugula sertula	
119 <400> SEQUENCE: 10	
120 Lys Leu Gly Asp Pro Ile Glu Val Glu Thr Leu Ala Glu Ser Phe Arg	
121 1 5 10 15	
122 Val Tyr Thr Asp Lys Arg His Tyr Cys Ala Leu Gly Ser Val Lys Ser	
123 20 25 30	
124 Asn Ile Gly His Leu Gly Val Gly Ala Gly Ile Ala Gly Val Thr Lys	
125 35 40 45	
126 Val Leu Leu Ser Leu Gln His Arg Met Leu Pro Pro Thr Ile His Cys	
127 50 55 60	
128 Glu Asp Val Asn Pro Gln Ile Ala Leu Glu Gly Ser Pro Phe Tyr Ile	
129 65 70 75 80	

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130 Asn Thr Glu Leu Lys Pro Trp Gln Ser Gly Asp Gly Ile Pro Arg Arg
131 85 90 95
132 Ala Gly Val Ser Ser Phe Gly Val Ser
133 100 105
135 <210> SEQ ID NO: 11
136 <211> LENGTH: 736
137 <212> TYPE: DNA
138 <213> ORGANISM: Endobugula sertula
140 <400> SEQUENCE: 11
141 aaattgggtg atccgataga agtcgagaca ttggcagaat cgtttgcagt ctatacggac 60
142 aagcgtcatt actgtgctct ggggtcggtt aaaagtaata ttggtcattt ggggttaggt 120
143 gctggatag cgggcgtgac caaaagtattt ttgtctttgc agcatcgcat gttaccaccg 180
144 acgattcatt gtgaggatgt aaacccacag attgcgttgg aaggtagccc ctttatatc 240
145 aatacggaat taaagccttg gcagtcttgtt gacggtatac cacgacgggc tggtgtcagt 300
146 tctttgggtg tcagtggtac caatgcacat cttgtatttag aagaatatac tcaccgagta 360
147 acatcaccat tacaaaatac tattttaccc cagaacgggt tggttattgt tccactatct 420
148 gcaaaaaatg atgaatgctt aatagcttgtt gtcgaacgac tggttatttt tctaaaaagc 480
149 aggcaatccg atacatataa aaaatattcc ttaagtgata cagctccat attgttagat 540
150 ttagcatata ccctccaggt cagtagggaa gcgatgacaa aacgagtgc cttgttagtg 600
151 aaaacaacaa tagagttaat ggaaaaatta aatgcattt tagaaaaaca aaatactata 660
152 aaagcaagta atataaaagg ttgttactac tcttcgacta aaacatcgag tccatttgat 720
153 aatgaatcga ctgatc 736
155 <210> SEQ ID NO: 12
156 <211> LENGTH: 245
157 <212> TYPE: PRT
158 <213> ORGANISM: Endobugula sertula
160 <400> SEQUENCE: 12
161 Lys Leu Gly Asp Pro Ile Glu Val Glu Thr Leu Ala Glu Ser Phe Arg
162 1 5 10 15
163 Val Tyr Thr Asp Lys Arg His Tyr Cys Ala Leu Gly Ser Val Lys Ser
164 20 25 30
165 Asn Ile Gly His Leu Gly Val Gly Ala Gly Ile Ala Gly Val Thr Lys
166 35 40 45
167 Val Leu Leu Ser Leu Gln His Arg Met Leu Pro Pro Thr Ile His Cys
168 50 55 60
169 Glu Asp Val Asn Pro Gln Ile Ala Leu Glu Gly Ser Pro Phe Tyr Ile
170 65 70 75 80
171 Asn Thr Glu Leu Lys Pro Trp Gln Ser Gly Asp Gly Ile Pro Arg Arg
172 85 90 95
173 Ala Gly Val Ser Ser Phe Gly Val Ser Gly Thr Asn Ala His Leu Val
174 100 105 110
175 Leu Glu Glu Tyr Thr His Arg Val Thr Ser Pro Leu Gln Asn Thr Ile
176 115 120 125
177 Leu Pro Gln Asn Gly Leu Phe Ile Val Pro Leu Ser Ala Lys Asn Asp
178 130 135 140
179 Glu Cys Leu Asn Ala Cys Val Glu Arg Leu Leu Phe Phe Leu Lys Ser
180 145 150 155 160
181 Arg Gln Ser Asp Thr Tyr Lys Lys Tyr Ser Leu Ser Asp Thr Ala Pro
182 165 170 175

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183	Ile	Leu	Leu	Asp	Leu	Ala	Tyr	Thr	Leu	Gln	Val	Ser	Arg	Glu	Ala	Met
184	180							185						190		
185	Thr	Lys	Arg	Val	Ala	Phe	Val	Val	Lys	Thr	Thr	Ile	Glu	Leu	Met	Glu
186	195							200						205		
187	Lys	Leu	Asn	Ala	Phe	Ile	Glu	Lys	Gln	Asn	Thr	Ile	Lys	Ala	Ser	Asn
188	210							215						220		
189	Ile	Lys	Gly	Cys	Tyr	Tyr	Ser	Ser	Thr	Lys	Thr	Ser	Ser	Pro	Phe	Asp
190	225						230				235			240		
191	Asn	Glu	Ser	Thr	Asp											
192		245														
194	<210>	SEQ ID NO:	13													
195	<211>	LENGTH:	312													
196	<212>	TYPE:	DNA													
197	<213>	ORGANISM:	Endobugula sertula													
199	<400>	SEQUENCE:	13													
200	cgatttaggtg	atccaattga	attggcagca	ctctcgaagg	cgtttgagga	gggaacacaa									60	
201	cggaaaacagt	tttgcggtat	cgggtcagta	aaatcaaata	ttggtcatct	ggatgttgct									120	
202	gctggagtcg	ttggctctgat	caagacagca	ttgtcgctgc	agcaccgttt	gttgcctccc									180	
203	acgatcaact	acgaagcacc	caatcgggaa	atcaattttg	aacaatcacc	ctttcatgtg									240	
204	attgatgaac	tcacggagtg	gcggggtcaa	ggtggaccac	ttcgtgctgg	tgtcagctcg									300	
205	tttggatttg	gt													312	
207	<210>	SEQ ID NO:	14													
208	<211>	LENGTH:	104													
209	<212>	TYPE:	PRT													
210	<213>	ORGANISM:	Endobugula sertula													
212	<400>	SEQUENCE:	14													
213	Arg	Leu	Gly	Asp	Pro	Ile	Glu	Leu	Ala	Ala	Leu	Ser	Lys	Ala	Phe	Glu
214	1				5				10					15		
215	Glu	Gly	Thr	Gln	Arg	Lys	Gln	Phe	Cys	Gly	Ile	Gly	Ser	Val	Lys	Ser
216						20			25					30		
217	Asn	Ile	Gly	His	Leu	Asp	Val	Ala	Ala	Gly	Val	Val	Gly	Leu	Ile	Lys
218						35			40					45		
219	Thr	Ala	Leu	Ser	Leu	Gln	His	Arg	Leu	Leu	Pro	Pro	Thr	Ile	Asn	Tyr
220						50			55					60		
221	Glu	Ala	Pro	Asn	Arg	Glu	Ile	Asn	Phe	Glu	Gln	Ser	Pro	Phe	His	Val
222						65			70					75		80
223	Ile	Asp	Glu	Leu	Thr	Glu	Trp	Arg	Gly	Gln	Gly	Gly	Pro	Leu	Arg	Ala
224						85			90					95		
225	Gly	Val	Ser	Ser	Phe	Gly	Ile	Gly								
226					100											
228	<210>	SEQ ID NO:	15													
229	<211>	LENGTH:	324													
230	<212>	TYPE:	DNA													
231	<213>	ORGANISM:	Endobugula sertula													
233	<400>	SEQUENCE:	15													
234	caattggggcg	accctattga	actgcaagca	ctggccgatg	tgtatagagt	tgataactgg									60	
235	cggaaaaaca	cctgtccct	cggctcggt	aaaagcaata	ttggccatac	ctctgcggcc									120	
236	tctggtgtgg	ctggatataca	caaggtgctg	ttatcgctta	agcatcgaca	attagtagcg									180	
237	agcctgcatt	ttaatagcgc	caatcaccac	tttgattttc	aacagtgcgc	tttttatgtc									240	

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238 aatacccagc taaggccctg gcatcaagca gagggactag aagaaagccg ccgccgggct      300
239 gcggtcgtt cttttggtgt cagt                      324
241 <210> SEQ ID NO: 16
242 <211> LENGTH: 108
243 <212> TYPE: PRT
244 <213> ORGANISM: Endobugula sertula
246 <400> SEQUENCE: 16
247 Gln Leu Gly Asp Pro Ile Glu Leu Gln Ala Leu Ala Asp Val Tyr Arg
248   1           5           10          15
249 Val Asp Asn Trp Arg Lys Asn Thr Cys Ala Leu Gly Ser Val Lys Ser
250   20          25          30
251 Asn Ile Gly His Thr Ser Ala Ala Ser Gly Val Ala Gly Ile His Lys
252   35          40          45
253 Val Leu Leu Ser Leu Lys His Arg Gln Leu Val Ala Ser Leu His Phe
254   50          55          60
255 Asn Ser Ala Asn His His Phe Asp Phe Gln Gln Ser Pro Phe Tyr Val
256   65          70          75          80
257 Asn Thr Gln Leu Arg Pro Trp Asp Gln Ala Glu Gly Leu Glu Glu Ser
258   85          90          95
259 Arg Arg Arg Ala Ala Val Ser Ser Phe Gly Val Ser
260   100         105
262 <210> SEQ ID NO: 17
263 <211> LENGTH: 308
264 <212> TYPE: DNA
265 <213> ORGANISM: Endobugula sertula
267 <400> SEQUENCE: 17
268 gagtatggag atccaatgga attgacggct gcagctgccg tctttggacg aggacgaaat      60
269 cagaaaaatc gtttgctggc cgatcgat aaagccaata tttagtcacct ggaagcagcc      120
270 gggggatttt ctggactgat caaagcagta ctggcaatgc agcatggcgt gattccacag      180
271 caattacact gcaaagaacc gagtcctcat atcccctgga aacgtctgcc tctcgatttg      240
272 gtacaagagc agactgtctg gccggaaagt gaagagcggg tcgcggctgt aacagcgtcg      300
273 gattagcgt
275 <210> SEQ ID NO: 18
276 <211> LENGTH: 101
277 <212> TYPE: PRT
278 <213> ORGANISM: Endobugula sertula
280 <400> SEQUENCE: 18
281 Glu Tyr Gly Asp Pro Met Glu Leu Thr Ala Ala Ala Ala Val Phe Gly
282   1           5           10          15
283 Arg Gly Arg Asn Gln Lys Asn Arg Leu Leu Val Gly Ser Val Lys Ala
284   20          25          30
285 Asn Ile Ser His Leu Glu Ala Ala Gly Gly Ile Ser Gly Leu Ile Lys
286   35          40          45
287 Ala Val Leu Ala Met Gln His Gly Val Ile Pro Gln Gln Leu His Cys
288   50          55          60
289 Lys Glu Pro Ser Pro His Ile Pro Trp Lys Arg Leu Pro Leu Asp Leu
290   65          70          75          80
291 Val Gln Glu Gln Thr Val Trp Pro Glu Ser Glu Glu Arg Ile Ala Ala
292   85          90          95

```

Use of n and / or Xaa has been detected in the Sequence Listing. Review the Sequence Listing to ensure a corresponding explanation is present in the <220> to <223> fields of each sequence using n or Xaa.

VERIFICATION SUMMARY
PATENT APPLICATION: US/09/775,938A

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Input Set : A:\09-775938 Sequence listing.txt
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L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:37 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:50 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:388 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24
L:625 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30
L:626 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30
L:627 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30
L:628 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30
L:647 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30
L:648 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30
L:649 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30
L:650 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30
L:651 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30
L:654 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30
L:655 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30
L:661 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30
L:662 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30
L:663 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30
L:664 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30
L:665 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30
L:676 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30
L:685 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30
L:686 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30
L:687 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30
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L:693 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30
L:698 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30
L:700 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30
L:701 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30
L:702 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30
L:703 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30
L:716 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31
L:731 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31
L:732 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31
L:733 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31
L:734 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31
L:735 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31
L:737 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31
L:739 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31
L:740 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31
L:758 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31
L:759 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31
L:761 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31
L:763 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31
L:764 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31
L:776 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31
L:782 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31
L:789 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31

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L:796 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31
L:797 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31
L:799 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31